1988/15. DORIS - A drill log record information system (Revision 2).

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Abstract

The program suite described is used to provide an index to the Department
of Mines collection of geological drill logs. Programs are included for
adding entries to the data base, and editing and searching the data base.
The data are entered in a simple fill-in-the-spaces manner.

USING THE PROGRAMS

The programs are run on the Geological Survey Perkin-Elmer mini-computer,
and it is assumed that the user is familiar with the standard data editing
facilities.

Data base maintenance

Data are put into a standard format (Appendix 1) before entry. Input is
commenced by typing LOGADD and continues until 0 is typed in response to
the reference number prompt. The drill type numbers are entered as either
one or two digits on the same line.

Where a prompt terminates with an * the input program, as modified by E. L.
Martin, will use the previously entered value if the line is left blank, a
blank if a backslash (\) is entered, and the entered value if neither of
the preceding is used.

At the end of input, a proof-sheet is output and the data are saved in file
LOGTEMP.TMP. Any corrections should be made to this file using the standard
editing facilities and a new proof sheet then printed and checked.

The new data in LOGTEMP.TMP must be added to the end of the existing
data base by typing LOGMERGE. To ensure that the file remains in reference
number order, it is automatically sorted at this time. The reference number
index (LOGINDEX.IND) is also updated.

The sequence of reference numbers should be checked from time to time by
typing LOGCHECK. A printout will show any missing or duplicated reference
numbers.

Corrections to the main data base are made by typing LOGEDIT. This program
prompts for a reference number and, if the data displayed as corresponding
to this number are accepted, all parts of the entry may be changed. Changes
are listed on the printer. As with LOGMERGE the data are automatically
sorted.

Data base searching

The search phase is entered by typing LOGSRCH. An entry will be retrieved
only if one value in each search option specified is found.

The program requests the following data:

(i) Borehole (including locality) – one or more borehole names and localities on a single line, each terminated by /. If a search by borehole name (including locality) is not required leave the line blank.

   e.g. FINGAL/AVOCA/SMITHTON/

(ii) Core held – enter Y if only holes for which core is held are to be retrieved. Leave blank otherwise.

(iii) Organisation – details as for location.

(iv) Do you want to search on other details – type Y to be prompted for items (v) to (xvii).

(v) Starting reference number – leave blank to search entire data base.

   Finishing reference – specify the last number to be searched
                        – leave blank to search all the data base
                        after the starting reference number.

(vi) Quadrangle – one or more quadrangle numbers in the format used for location.

(vii) Map sheet – one or more 1:50 000 map sheet numbers in the format used for location.

(viii) Search by area – leave blank for no search by area.

   – Y for finding entries inside specified area. Entries on the boundary of the area will not be found. The program prompts for the number of vertices. If 2 is entered a simple rectangle parallel to the grid may be entered by specifying the co-ordinates of any two diagonally opposite corners. Otherwise the program prompts for the vertex co-ordinates. Co-ordinates should be in the same form as used on the input sheets.

(ix) Purpose – one or more purpose numbers in the same format used for location.

(x) First report selection – one or more groups of words or numbers on a single line, each group of words terminated by /. If this option is not required leave the line blank.

   e.g. TCR/TAS/MG027/
        TCR or TAS or MG or 027

(xi) Second report selection – as for the first report selection. Both report selections must be satisfied during a search if further items are to be checked and this provides a 'logical and' for the report search. For example it is possible to look for TCR report number 1227 by making the first title selection TCR/ and the second title selection 1227/

(xii) EL or ML – one or more EL or ML numbers on a single line, each terminated by ;. Leave blank if a search by EL or ML is not required.

   e.g. 5/63; 123P/M; 16/83.

(xiii) Drilled by - details as for purpose.

(xiv) Range of commencement dates - enter the earliest and latest possible
     commencement dates at the prompt in the form used on the input sheet.
     Leave blank if this option is not required.

     e.g. 12/1876
           3/1878

(xv) Drill type - one or more drill type numbers on a single line, each
     group terminated by /. Leave blank if not required.

     e.g. 0/2 diamond or rotary
           02/4/ diamond and rotary or auger

(xvi) Geophysical logging - enter Y if only holes that have been
     geophysically logged are to be retrieved. Leave blank otherwise.

(xvii) Search complete, incomplete or all logs;
     - type C to search only complete logs
     - type I to search only incomplete logs
     - type A or leave blank to search all logs

(xviii) Proceed with this search - type N if a mistake has been made in
                                   entering the search specification.

(xvix) Do you want a screen listing - type N if no screen listing is
                                   required.

       List more entries on screen - type N if no more entries are to be
                                   listed on the screen.

(xx) Search this subset again - type Y if the selected subset is to be
                                searched again to further discriminate
                                in the selection of entries.

(xxi) Do you want a printout - type Y if a printout is required.
       Core location - enter Y if the core locations are required. Leave
       blank otherwise.

(xxii) More searches - type N to finish searching.

THE PROGRAMS

Logadd

This program accepts data from the keyboard and copies it to a file in a
format suitable for editing. Prompts are used to guide the user. The file
created (LOGTEMP.TMP) is then edited using the standard edit facilities.

Logmerge

The data from LOGTEMP.TMP are converted to the format of the data base. The
data base is copied to a temporary work file and the new data are added to
the end of this. The combined file is then sorted and copied back to the
original data-base file.

Logsort

The data may be sorted into ascending reference number order and written to
a temporary file in the new order.   The temporary file is then copied back
to the original data-base file. A reference number index (LOGINDEX.IND) is
updated so that the drill log data base can also be accessed from CORSRCH.

LOGSORT is automatically called by LOGMERGE AND LOGEDIT.

Logedit

The data in the data base may be corrected or changed.   Entries are
retrieved by reference number with the update file being checked first to
allow multiple correction of one entry. The corrections are then written
directly into a copy of the main data base, and the corrected file is then
sorted and copied back to the main data base.

Logcheck

This program scans the data base listing for duplication or gaps in the
sequence of reference numbers. Any problems are output on the printer.

Logsrch

The data base is searched for the occurrence of specified strings and a
point-in-polygon algorithm is used to locate data from within a specified
area. Core location data are retrieved from the CORLIB data base and
appeared to the normal DORIS printout.

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APPENDIX 1

Borehole log data sheet

REFERENCE NO: _ _ _ _ _ (5)

BOREHOLE NO: _ _ _ _ _ _ _ _ _ _ _ _ (12)

LOCALITY: _ (20)

QUADRANGLE: _ _ (2)

1:50 000 MAP SHEET _ _ _ _ _ (5)

AMG MAP REFERENCE: _ _ _ _ 5 _ _ _ _ (9)

PURPOSE:

| 0 | Engineering geology | | 1 | Metallic minerals | | 2 | Non-metallic minerals |

| 3 | Fuels | | 4 | Stratigraphic (Tick one) |

PLAN NO: _ _ _ _ _ _ (6)

REPORT: _ _ _ _ _ _ _ _ _ _ _ _ (12)

LOG LOCATION: _ _ _ (3)

CORE HELD: Y/N (1)

E.L. OR M.L. etc. _ _ _ _ _ _ _ (7)

ORGANISATION: _ (20)

DRILLED BY:

| 0 | Department of Mines | | 1 | Hydro-electric Commission |

| 2 | Commonwealth | | 3 | Private contractor (Tick one) |

DATE COMMENCED: _ _ / _ _ _ _ (7)

DEPTH: _ _ _ _ (4)

DRILL TYPE :

| 0 | Diamond | | 1 | Cable Tool | | 2 | Rotary |

| 3 | Percussion | | 4 | Auger (tick two maximum) |

GEOPHYSICAL LOGGING: Y/N (1)